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USSR: Prospects for Grain and Other Major Crops

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USSR: PROSPECTS FOR GRAIN AND OTHER MAJOR CROPS

SUMMARY

1. We currently put the Soviet grain crop at 170 million metric tons, up slightly from our previous estimate of 165 million tons. The Soviets had planned for a grain crop of 215 million tons.

2. The revised production estimates for the most part reflect the receipt of new information and the reevaluation of other data rather than improved conditions. Even this late in the crop year, however, the estimate remains more uncertain than usual because of record-breaking poor weather conditions and nearly total silence about crop conditions by the Soviet media.

3. While improved weather since late July arrived too late to help the 1975 Soviet grain crop except for corn, it was in time to brighten prospects for other important crops such as sugar beets, sunflower seeds, and potatoes.

- Production of potatoes should be about 10% greater than last year's poor harvest of 81 million tons;
- The sugar beet crop will be above the 1974 level of 76 million tons but will likely be 8 to 10 million tons shy of the 94 million ton goal; and
- Output of sunflower seeds will drop 12% below last year's level to about 6 million tons.

4. Since mid-July the USSR has contracted for 15.3 million tons of Western grain for delivery by September 1976, including 9.8 million tons from US grain companies. Confirmation of rumored purchases would boost the total to more than 16-1/2 million tons.

5. Trade prospects for other crops are less clear. Rumors of a 350,000 ton purchase of sugar from the Philippines have not been substantiated, although it

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is likely that the Soviets bought at least half of that quantity. Moscow is reportedly negotiating for an additional 300,000 tons from India. Although not needed to fill domestic vegetable oil requirements, the USSR may decide to import soybeans to stretch feed supplies.

DISCUSSION

Introduction

6. Improved weather in late July and most of August in much of the USSR's cropland did not brighten the outlook for 1975 grain production but bettered conditions for other crops. This publication updates our previous estimate of Soviet crop production using weather data through 24 August and collateral information – including reports from the US Department of Agriculture's winter and spring wheat teams that visited the USSR in June and July – and discusses Soviet activity in international commodity markets.

Crop Status

Grain

7. Our end-of-August estimate of the Soviet grain crop is 170 million tons, up slightly from the previous forecast of 165 million tons (see Table 1). This is approximately 25 million tons less than last year's crop and only 2 million tons higher than the 1972 harvest that sparked Moscow's last round of massive grain purchases.

8. Most of this year's shortfall is in feedgrain output (barley, corn, and oats) – expected to be about 19 million tons less than last year's crop and close to the 1972 level. Production of wheat – the most important foodgrain – is estimated at 79 million tons, only 5 million tons below the 1974 crop because of this year's excellent winter wheat harvest.

9. This year the area sown to grain is 1.3 million hectares greater than in 1974 (see Table 2). Wheat and barley sowings are up 4% and 5%, respectively, while the corn area is down almost 20% from 1974's unusually high level. Each year a portion of the sown area is abandoned or cut for fodder. In 1974 the harvested area was 127.2 million hectares, 2-1/2 million hectares less than the area sown. There is evidence that a part of this year's drought area has been abandoned and that the harvested area will approximate last year's total.

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Table 1

USSR: Production of Grain¹

	Million Metric Tons					
	Annual Average 1966-70	1971	1972	1973	1974	Esti- mated 1975
Total	167.6	181.2	168.2	222.5	195.6	170
Winter grains ²	50.8	63.0	40.6	63.5	62.5	61.5
Of which:						
Wheat	35.9	47.8	29.4	49.4	44.7	46.5
Spring grains	116.7	118.2	127.6	159.0	133.1	108.5
Wheat	54.3	51.1	56.6	60.5	39.2	32.5
Barley	28.3	32.3	35.1	51.7	51.6	37
Other ³	34.1	34.8	35.9	46.8	42.3	39

1. Because of rounding, components may not add to the totals shown.

2. In addition to winter wheat, winter grains include rye and winter barley.

3. Including corn, oats, miscellaneous grains, and pulses.

Table 2

USSR: Sown Area, by Type of Grain¹

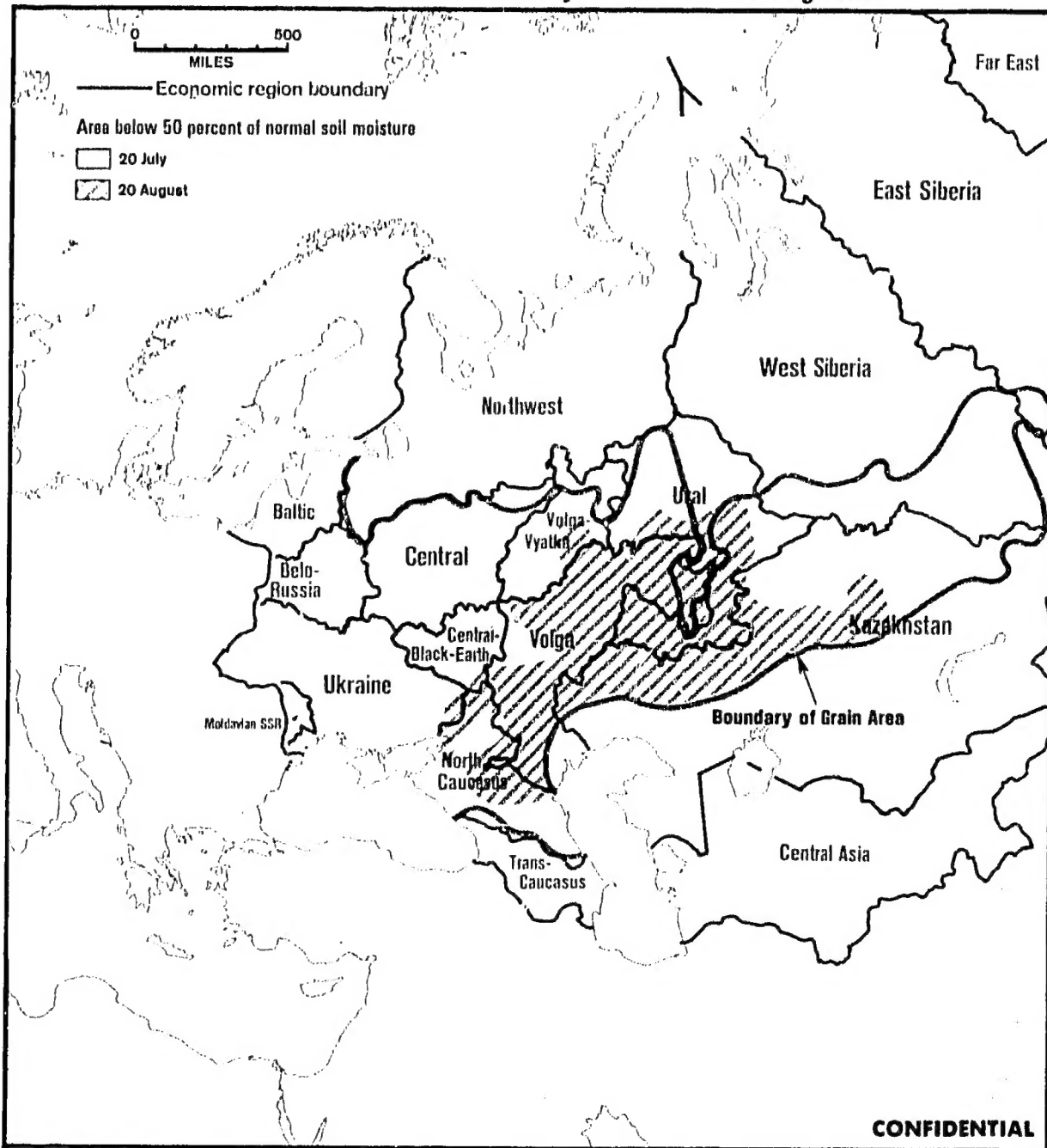
	Million Hectares	
	1974	Pre- lim- inary 1975
Total	129.7	131.0
Winter grains	29.8	29.2
Of which:		
Wheat	18.7	19.6
Spring grains	99.7	101.6
Wheat	41.2	42.6
Barley	30.0	31.4
Corn	5.2	4.2
Other ²	23.3	23.4

1. Because of rounding, components may not add to the totals shown. Each year a portion of the sown area is abandoned or cut for fodder. For example, in 1974 the harvested area was 127.2 million hectares, 2-1/2 million hectares less than the area sown.

2. Including oats, miscellaneous grains, and pulses.

10. The revised production estimates for the most part reflect the receipt of new information and the reevaluation of other data rather than an improvement in Soviet grain crop conditions. In much of the USSR's spring grain area and in the southern Ukraine and northeastern Caucasus - important winter grain, corn, and sunflower producing areas - drought continued throughout most of July (see the map). Rain in late July and early August shrank the western boundary of the drought area but came too late to improve grain prospects.

11. Even this late in the crop year the estimates remain more uncertain than usual. Last winter's excellent conditions were followed by

USSR: Soil Moisture Conditions in the Major Grain Growing Area

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the worst drought recorded in our 15-year data base, making statistical estimation unusually difficult. In addition, most of the area that remains to be harvested is east of the Urals where early frosts or poor weather could lead to above-normal harvest losses. Moreover, collateral information from Soviet newspapers has not been helpful in quantifying the size of the harvest. Normally, grain yields for farms and administrative areas (rayons and oblasts) are cited in the local press. The press has published little about local conditions and virtually nothing about the drought area,¹ although almost two-thirds of the grain area is now harvested.

Forage Crops

12. Hay and other forage crops, which normally supply about two-thirds of the USSR's livestock feed, have also been hurt by the dryness.² Roughly half of the area under forage crops has been affected by the drought, dropping output by up to 50 million tons – roughly one-fourth of normal production – and possibly adding 11 to 15 million tons of grain to requirements for livestock feed.³ Reduced expectations for corn ensilage accounts for most of the loss in forage crops⁴; the remainder is hay.

13. Forage crops in the areas not affected by the drought are average or better, with harvesting progressing ahead of schedule. On balance, however, the fodder situation remains serious. Hay procurements by the state have slowed markedly, with only about 60% of the plan filled. Moreover, campaigns to increase feed supplies – for example, sending office workers and school children in southern Kazakhstan to gather "twigs and reeds to be used as fodder" and moving livestock to nondrought areas to graze – illustrate the severity of the problem.

14. The impact of the reduced harvest of forage crops on the livestock sector is not yet known. Conservation measures will certainly bolster feed supplies, but at best there will be a temporary slowdown in Brezhnev's ambitious livestock program. Prior to this crop year the livestock program was in good shape, thanks largely to back-to-back bumper harvests in 1973 and 1974. During this period the amount of grain fed to livestock increased sharply; generally, herds entered the drought period in top condition.

1. A Leningrad lecturer recently stated that the grain harvest would probably be around 190 million tons, down from early June prospects for 210 to 215 million tons as a result of drought conditions in principal growing areas. This estimate seems substantially above expectations and probably reflects efforts to stave off food hoarding and price increases in the free markets. The lecturer did not mention Soviet grain purchases.

2. Important forage crops include ensilage (9% of total feed units in 1970, the year of most recent data), green chop (9%), potatoes (3%), hay (1%), straw (6%), and pasture (23%).

3. The conversion from forage into grain equivalent depends on the type of grain available for feeding. A unit of corn, for example, supplies roughly one-third more feed value – by Soviet calculations – than a unit of oats.

4. Areas affected by the drought normally produce half of the USSR's corn ensilage.

15. Nevertheless, the leadership faces a serious challenge in the drought areas, where about one-third of all livestock are raised, and it is now taking steps to protect herds. Feed supplies are being shipped into the drought areas, and livestock is being moved to better pastures in an effort to avoid mass slaughtering of herds. Such slaughtering would temporarily increase the amount of meat available to consumers but would slow future growth in meat supplies. For example, after forced slaughtering following the 1963 crop failure, it took several years for swine herds to regain the pre-slaughter levels.

16. The downturn in production of forage crops will increase the need for grain. More than half of the USSR's grain crop is used to feed livestock, as shown in the accompanying tabulation. In contrast, only about one-third of the grain crop was used to feed animals a decade ago. Other grain uses – food, seed, industrial use, and export – have changed little and have shrunk as a share of total grain requirements. These are normal grain needs; unusual losses of forage crops – such as those experienced this year – or potatoes – an important feed crop – necessitate the substitution of grain in livestock rations, adding to grain requirements. This year, for example, forage losses will boost total requirements to more than 210 million tons.

	<u>Million Tons</u>	
	<u>FY</u>	<u>FY</u>
	<u>1975</u>	<u>1976</u>
Grain required for:		
Seed	27	27
Food	60	60
Industry	3	3
Export	7	3
Livestock feed ¹	101	104
Total grain demand	198	197

1. Estimated requirements for livestock feed are arbitrarily reduced by 10% to exclude the excess moisture and extraneous matter included in bunker weight measurement of grain used by the Soviets.

Other Major Crops

17. Prospects for other major nongrain crops – sugarbeets, potatoes, and sunflower seeds – are much better than for the grain crop. These crops are largely grown outside the drought area and in any case are generally far more drought resistant than grain. Moreover, because these crops mature later than grain, the rains during the past few weeks have improved prospects in areas that were suffering moisture deficiencies.

18. Sugar beet production will be up from a disappointing 76.4 million tons in 1974 but will likely be 8 to 10 million tons shy of this year's goal of 94 million tons (see Tables 3 and 4). An early spring promoted the sowing of sugar beets, but thinning work, critical to good beet growth, was not completed as scheduled. So far, growing conditions in the sugar beet area have been mixed. In the western

Table 3

USSR: Production of Major Nongrain Crops

	Million Metric Tons					
	Annual Average 1966-70	1971	1972	1973	1974	Esti- mated 1975
Potatoes	94.8	92.7	78.3	108.2	80.7	89
Sugar beets	81.1	72.2	76.4	87.0	76.4	85
Sunflower seeds ¹	6.4	5.7	5.0	7.4	6.8	6
Vegetables	19.5	20.8	19.9	25.9	23.1	21
Cotton	6.1	7.1	7.3	7.7	8.4	8.4

1. Data given are official Soviet statistics and should be discounted by 8% to derive estimated usable production.

Table 4

USSR: Area of Major Nongrain Crops

	Million Hectares					
	Annual Average 1966-70	1971	1972	1973	1974	Esti- mated 1975
Potatoes	8.2	7.9	8.0	8.0	8.0	7.9
Sugar beets	3.6	3.3	3.5	3.6	3.6	3.7
Sunflower seeds	4.8	4.5	4.4	4.8	4.7	4.8
Vegetables	1.4	1.5	1.6	1.6	1.7	1.7
Cotton	2.5	2.8	2.7	2.7	2.9	2.9

and northern Ukraine, which normally produces about two-thirds of the crop, conditions have been very good. In the southern Ukraine and eastern black soil area, where about one-fourth of the crop is located, the prolonged dryness cut production prospects. The late July rains were in time to partly resuscitate the crop, however. Weather until harvest time in September will continue to affect production. Warm, sunny days are needed for maximum sugar accumulation. For example, last year, late planting, a cool summer, and a rainy fall delayed the harvest, reduced beet yields by 15%, and lowered sugar content of the beets by 5%.

19. Production of sunflower seeds, the source of roughly 70% of domestically consumed vegetable oil and also of high-protein meal for supplementing livestock feed, probably will drop below last year's level. Much of the major sunflower

growing area – especially the southern Ukraine and northeastern Caucasus – was severely affected by the drought. Although sunflowers are generally hardy, drought-resistant plants, this year's unusually severe conditions have reduced yields substantially. Here, too, rains during the past month have mitigated the drought's effect. We estimate that about 6 million tons of sunflower seeds will be harvested from the 4.8 million hectares planted this spring. The crop is down from last year's 6.8 million tons and the record 7.4 million tons harvested in 1973. Nevertheless, a vegetable oil shortage is not expected. The record 1973 sunflower crop promoted stock accumulation, and the outlook for the current cotton crop, the other major source of vegetable oil, is good.

20. Output of potatoes, an important starchy staple, also has been diminished by below-normal soil moisture and partly revived by the better weather in late July. The harvest should be at least 10% greater than the poor 1974 crop of about 81 million tons but will be roughly 20 million tons short of the 1973 record. Approximately 60% of the potatoes are grown on private plots and were undoubtedly more closely tended during this summer's hot spells than those grown in the socialized sector of the economy. Reports that new potatoes, which are just now appearing in Moscow markets, are being sold at normal prices support our assessment.

21. The picture for other crops is mixed. Cotton production will exceed the 1975 plan and possibly reach last year's record 8.4 million tons. Vegetable output should be slightly below last year's 23 million tons, and fruit production, hurt more severely by the drought, will be down.

Trade

22. Moscow cannot entirely fill the large gap between 1975 grain output and requirements with imports. Since mid-July the USSR has purchased 15.3 million tons of grain for delivery by September 1976, of which 9.8 million tons were bought from US grain companies (see Table 5). Confirmation of rumored purchases would boost the total to more than 16-1/2 million tons, worth about \$2-1/2 billion.

23. The USSR continues to search for grain, having commissioned one US-based grain company to buy any non-US origin wheat, corn, and barley. The USSR's relatively strong financial position will allow it to compete actively for available world grain. However, both the United States and Canada have temporarily halted sales to the Soviets until fresh assessments of their own crops are made in early September. Potential Soviet purchases from sources other than the United

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Table 5

USSR: Grain Purchases, Confirmed and Unconfirmed,
as of 27 August 1975

	Quantity (Thousand Metric Tons)	Estimated Value ¹ (Million US \$)	Delivery Period
Total grain	16,619	2,432
Wheat	10,255	1,680	
Corn	4,603	553	
Barley	1,600	179	
Oats	101	12	
Rye	60	8	
Supplier			
United States ²	9,800	1,317	
Wheat	4,200	651	Aug 75 - Aug 76
Corn	4,500	540	Oct 75 - Aug 76
Barley ³	1,100	126	Oct 75 - Aug 76
Canada	4,121	680	
Wheat	3,810	645	Aug 75 - Aug 76
Oats	51	6	Aug 75 - Oct 75
Barley	200	21	N.A.
Rye (unconfirmed)	60	8	N.A.
Australia	1,100	186	
Wheat	1,100	186	Sep 75 - May 76
Argentina	200	36	
Wheat	200	36	N.A.
Brazil	50	6	
Corn	50	6	N.A.
France (unconfirmed)	700	100	
Wheat	400	68	N.A.
Barley	300	32	N.A.
West Germany (unconfirmed)	500	85	
Wheat	500	85	N.A.
Italy (unconfirmed)	98	16	
Wheat	45	9	N.A.
Corn	53	7	N.A.
Optional origin	50	6	
Oats	50	6	N.A.

1. All values are assumed to be f.o.b.

2. Country of origin at seller's option.

3. Probably will be switched to equal amount of corn at seller's option.

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States and Canada now appear limited to about 4 million tons this year. This year's large grain imports, coupled with rising demand and uncertainty about its ability to consistently meet future requirements from production, increases the likelihood that Moscow will be willing to participate with Western suppliers in a long-term purchase agreement.

24. The total amount of Soviet grain imports is not constrained by port capacity. In 1973, grain deliveries reached 24 million tons, with no major delays reported. With reasonable scheduling, ports in the USSR can handle up to 36 million tons of grain imports a year. The domestic transport system also can manage grain shipments of this magnitude by diverting freight cars from other uses.

25. The Soviets have also shown an interest in importing sugar this year. After last year's disappointing sugar beet harvest the USSR spent \$250 to \$300 million to purchase an estimated 300,000 to 350,000 tons of sugar – primarily from Australia, Brazil, and Peru – in addition to 2.4 million tons imported from Cuba. The failure of this year's crop to meet planned levels apparently prompted the USSR to reenter the market. Rumors of a 350,000 ton purchase from the Philippines have not been confirmed, but the USSR probably bought at least half of that quantity, worth roughly \$85 million. Soviet ships have been seen loading sugar at one Philippine terminal. Moreover, the USSR is reported to be currently negotiating with India for 300,000 tons, valued at approximately \$140 million, to be delivered during the next six months.

26. There is no evidence that other commodities such as soybeans will be purchased.⁵ Despite the downturn in sunflower seed production there will be enough sunflower seed and cotton seed oil to fill domestic vegetable oil requirements and probably allow some exports. Soybean purchases could be used, however, as a means of stretching this year's feed supplies. Moscow has made only one major purchase of soybeans before – 1 million tons from the United States in 1972.

Domestic Options

27. Since grain imports will not meet this year's requirements, the Soviets will have to use stocks, estimated to be up to 15 million tons, and take steps to reduce the demand for grain.

5. Recent rumors that Brazil has sold a large quantity of soybeans to the Soviet Union have not been confirmed.

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28. As usual in a poor crop year, the USSR is reducing export commitments. The Soviets have reportedly asked East European customers to look to the West for FY 1976 import needs, estimated at 9 million tons. Half of this amount would normally be supplied by the Soviets, and Moscow reportedly has agreed to help defray the cost of the added Western imports. The Soviets probably will turn a deaf ear to requests for grain from non-Communist countries. In recent years the Soviets have exported grain to India, Bangladesh, and the drought-stricken African states.

29. Importing meat also could help lower grain needs. If the Soviets increase meat imports to 1 million tons -- equal to about 7% of domestic meat supplies and double their 1974 imports -- they could reduce grain demand by about 4 to 5 million tons.

30. In addition, Moscow will have to make adjustments at home to further curb demand for grain through some combination of the following steps:

- lower the quality of bread, as Khrushchev did following the poor 1963 harvest, saving about 4 million tons of grain;
- reduce livestock inventories by about 5% -- to the 1972 level -- saving roughly 6 million tons; and
- cut feedgrain rations per head of livestock to the 1972 level, while maintaining the current livestock inventory, saving approximately 13 million tons.

Given the regime's commitment to raising living standards, none of these steps is attractive.

31. Agriculture's misfortune will be felt throughout the economy. The agricultural sector contributes almost one-fourth of GNP. The expected downturn in crop production and the likely effect on the livestock sector should markedly dampen economic growth prospects for 1975. In 1974, for example, the economy grew at 3.8%, half the rate posted a year earlier, primarily because of a 4.4% drop in agricultural output.

32. Moreover, Soviet grain purchases, currently valued at roughly \$2.25 billion, will exacerbate balance of trade deficits with hard currency countries. Since late last year, Soviet exports have been hurt by the recession in the West while Soviet imports from these countries have remained high. The resulting deficit in hard currency trade will exceed \$2 billion in 1975. The outlook for 1976 is uncertain; Western credits and Soviet gold sales will cover the 1975 deficit and very likely any deficit which may be incurred in 1976.